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# Taxation and Service Obligations in Babylonia from Nebuchadnezzar to Darius and the Evidence for Darius' Tax Reform

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## Introduction

Herodotus III 89–97 relates that Darius reformed the Achaemenid empire's tribute and taxation<sup>1</sup> system by imposing regular money taxes where previously only irregular ("voluntary") tribute had been extracted from the empire's subject populations. The tax load imposed on Babylonia and Assyria for instance consisted of one thousand talents of silver (as well as five hundred Eunuch boys). The cash was collected centrally and hoarded, Herodotus tells us. It is foremost on these passages that the traditional image of Darius the bean-counting imperial shopkeeper is based.<sup>2</sup> The introduction of monetary taxes throughout the empire by Darius seems to be widely accepted, even though there is uncertainty about the level of the system at which produce in kind was converted into silver: recent studies suppose that in general tax payments were made in kind; a conversion into silver or gold is assumed to have occurred only on the higher levels of administration.<sup>3</sup> It is the principal purpose of this paper to study how the Herodotean narrative stands up to the only really substantial body of primary evidence on Achaemenid taxation that is available apart from the Elamite Persepolis archives: Babylonian cuneiform texts.<sup>4</sup>

Babylonian private archives as well as temple texts throw light on the ways in which Achaemenid government integrated Babylonia into the larger framework of the empire and exploited its considerable resources. For a long time, the feature of Achaemenid government and administration of the province of Babylonia that was most noticeable in the Babylonian sources and therefore attracted the most attention was the late fifth-century system of military 'fiefs' or service land, as documented in the Murašû archive from

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1 Note that in this paper, the word "taxation," especially when referring to phenomena encountered in Babylonian tablets dating to the sixth and fifth centuries BC, is most often used in a loose sense in that it also includes service obligations imposed by the state.

2 For Achaemenid taxation and tribute collection in general see foremost Briant's magisterial survey of the subject of "tribut et prélèvements royaux" (1996: 398ff.). Klinkott 2007 is a recent attempt at a synthesis.

3 See e.g. Bedford 2007: 322f. and Klinkott 2007: 272 and 274. Klinkott suggests that only a small part of the goods levied in the individual satrapies in different ways was converted into silver and delivered to the Great King. This would have been the "tribute (phoros)" proper; the bulk of the collected taxes was redistributed to dependants of the satrap, to local troops or was used locally in other ways.

4 The sources available for this period are catalogued in Jursa 2005.

Nippur.<sup>5</sup> The general perception of the Babylonian evidence on taxation-related matters is still largely dependent on the perspective offered by this text group even though research has moved on considerably.<sup>6</sup> According to the Murašû archive, the hinterland of Nippur was largely populated by groups of usually non-Babylonian descent which had received their land from the crown. In return for the land granted to them, they owed service as soldiers (literally “archers”) as well as taxes paid in kind and in silver money. The distinctive system of land-tenure built around the so-called bow ‘fief’ (or similar;<sup>7</sup> *bīt qašti*) that is reflected in the Murašû texts was often seen as typical of Achaemenid Babylonia in general on one hand, and as a distinctive departure from previous forms of land-tenure, military organisation and taxation on the other. More recent research has done much to nuance this over-simplified position.<sup>8</sup> First, it should be noted that the particular agrarian conditions around Nippur on which the Nippur system as reflected in the Murašû archive depended differed markedly from those prevailing in the rest of Babylonia. A survey of the economic geography of Babylonia, of the patterns of communication and of the movements of goods, shows that Nippur was quite isolated. Its agrarian regime exhibits few signs of the trend towards an intensification of cultivation that is noticeable in the north of Babylonia: this is the reason that there was so much space for an expansion of the land-for-service system to the benefit of newly arrived foreign groups, mercenaries and so forth. For these reasons alone, the image drawn on the basis of the Murašû archive cannot be typical for the rest of the country.<sup>9</sup> Furthermore, the Neo-Babylonian/Chaldean origins of the bow-‘fief’ system and its connection to the very old Mesopotamian tradition of integrating outsiders of different ethnic origins into the fabric of the state by settling them on institutional land and saddling them with service and tax obligations were discovered. Other modes of labour and military mobilisation as well as taxation were identified in the sources, in particular with respect to obligations incumbent on the indigenous Babylonian population, and within this group, especially on the more prosperous strata of its urban component. Mostly on the basis of documentation from Sippar and Borsippa, and to a lesser extent from Babylon, it was demonstrated that not only possession of rural estates designated as bow-land could serve as basis of taxation; also urban real estate and membership in certain professional groups could constitute the grounds for such obligations. Ownership of a Murašû-style *bīt qašti* was not always a prerequisite for being subject to taxation.<sup>10</sup> In the light of the substantial improvements of our understanding of the taxation system(s) present in Achaemenid period Babylonia, it seems useful to present a brief summary of the evidence now available and of its diachronic distribution before engaging with the discussion of the particular problems raised by the Herodotean narrative in this respect. It should be noted that when discussing

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5 On this archive, see e.g. Stolper 1985 and 1993–97.

6 The pertinent remarks by Klinkott 2007: 280ff. (“Eine Sonderform [viz. of taxation, MJ]: “Bogensilber” und “Soldatenland””) are a good example.

7 By using the word fief (whose use was defended by several authors, but contested by others), I do not intend to place particular emphasis on analogies to the (so-called) feudal system of Medieval Europe.

8 The most important individual study is van Driel 2002, where also much of the then available data is summarised. See furthermore Jursa 2010: 246ff. and 645ff. and Jursa/Waerzeggers 2010. These two studies draw heavily on the rich archives from Borsippa, but mostly unpublished.

9 This is argued in detail in Jursa 2010: 405ff.

10 Jursa 2010: 645ff.

the sources of royal income we will not engage in an analysis of the evidence for royal domain land – the king's estates (and those of his family), nor will we discuss the estates of high-ranking royal officials or of Iranian nobles.<sup>11</sup> Suffice it to point out that there is enough indirect evidence for such estates to establish that they were an important source of income for the crown, but certainly not even close to being as important for the overall agricultural output of the land as private land or temple land. The crown was largely, but of course not exclusively, an exploitative institution. Almost certainly the palace did not possess an agricultural basis of domain land that would have by itself been sufficient to provide for the needs of the royal establishment in all its forms.<sup>12</sup>

### Direct taxation in Babylonia under Persian rule until the end of the reign of Darius I

Direct taxation of (agrarian) income, as well as extraction of labour and military service, is attested in three forms, or rather, with respect to three distinct categories of social agents: we hear of taxation and service obligations

- a. in the realm of the temples;
- b. with respect to agricultural land that had been granted by the crown to individuals or groups who in return owed the king taxes and/or labour and military service; and
- c. with respect to private urban households.

We will not engage with the details of tax collection and levies of personnel. The sources refer to various officials engaged with these duties: military commanders and recruiting officers (*rab hanšê*, *rab ešerti*, *dēkû*). Indirect taxes could be levied by tax farmers. Owing to the frequency credit was extended by businessmen to tax payers for tax purposes, also entrepreneurs came to play an important structural role in the process of the collection of taxes and dues.<sup>13</sup>

#### a. *Taxation and Service Obligations in the Realm of the Temples*

In the Achaemenid period, taxes levied on the income of temple lands were collected by an official attached to the Esangila temple in Babylon, the “governor of Esangila,” *bēl pīhāt Esangila*. The Esangila, the principal temple of Babylon, therefore served at least virtually as a collection point for this type of agricultural income. The tax was designated as “dues of the Governor” (*kurummat bēl pīhāti*), as well as *kišir esitti* “mortar tax” and *balāṭu ana Bēl* “(payment for) the life of the god Bēl.” The tax has its root in the Neo-Babylonian period, it is first mentioned during the reign of Nabopolassar. Under Cyrus and Cambyses this tax demonstrably amounted to 3.33 percent of the temple's harvest according to two tablets from Uruk.<sup>14</sup> The royal administration, in tune with the trend towards an increasing

11 Royal land (land designated as *makkūr šarri* or, in the fifth century, as *bīt kussī*, literally throne land) was under direct management or it was leased to rent farmers. The highest officials in charge of the royal estates were the *mašennu*, the chief supervisor of irrigation installations and public works, and the king's major domus, the *rab bīti* (for these officials and their responsibilities see Jursa (in press a); for rent farming on royal estates see Jursa 2010: 196f.).

12 The evidence for royal land is discussed in Jursa 2010.

13 See the survey in Jursa (in press): § 7. This article contains the basic documentation for what follows. Therefore, references here will be limited to an absolute minimum.

14 *AnOr* 8, 63, 9 Cyr; YBC 4164, 6 [Camb]).

monetisation of economic exchange, accepted, or perhaps indeed encouraged, payments in silver money rather than in kind, as in the following case. The tablet is a list of various payments made by the Eanna temple of Uruk over a certain period.

3.33 minas (1.66 kg) of silver, for 240 *kurru* (43,200 litres) of barley, according to the rate of 216 litres of barley for a shekel of silver: the dues on 7,200 *kurru* (1,296,000 litres) of barley, the barley rent paid by the ploughmen (to the temple) for the sixth year (of Cambyses): this has been sent to PN the governor of Esangila, via PN<sub>2</sub> and PN<sub>3</sub>.<sup>15</sup>

The latest attestations of this tax that are known to us come from the end of Darius' first decade.<sup>16</sup> It is probably a mere coincidence that pertinent information is lacking for the king's later years – the two large temple archives that furnish most of the attestations are not very informative for these years. The Urukean documentation nearly comes to an end in second year of Darius, and the Sipparean Ebabbar archive exhibits a gradual reduction of subject matters treated in the surviving tablets. In the fifth-century Murašû archive, mention is made of a tax called *kušurrānu* and *balātu ana Bēl*.<sup>17</sup> Even though this tax is levied on the land granted to soldiers, it represents a terminological link to the sixth-century evidence and at the very least suggests that the Bēl temple Esangila still served as a collection point for state taxes.

Both in the Chaldean period and under Persian rule, the royal administration could, and did, draw on temple resources over and above the regular taxation of the temples' agricultural income by requesting manpower for royal building projects and victuals for the provisioning of the (itinerant) court and royal palaces. The evidence comes from the temple archives of Ebabbar and Eanna, and to some extent from private archives from Borsippa.<sup>18</sup> These royal demands were met by the temples in part with their own funds and drawing on the reservoir of dependent labour (the *širku* workers) at their disposal, in part the obligation was passed on to free members of the temple community, such as priests (and generally to the heads of private urban households?) in the form of service obligations or obligations to pay for substitute labour.<sup>19</sup> Royal pressure was always high, but quantification is out of reach. It is not improbable that demands increased under the Persians, perhaps even to a level that was barely sustainable. An anecdotal, but evocative insight is offered by the statement of a Urukean temple dependant who, during a quarrel with a colleague, threatens to throttle the other man with his own neck chain, saying "this is how Gubāru and Parnakku will place neck chains on workers (like you)!" This refers to the heavy corvée and labour

15 YBC 4164: 5–8: 3 1/3 ma.na kù.babbar šá 2 ME 40 gur še.bar ki-i pi-i, 1 gur 1 'pi' še.bar a-na 1 gín kù.babbar pad.hi.a šá 7 lim 2 ME gur še.bar, <sup>gis</sup>bán šá <sup>lu</sup>engar<sup>mes</sup> šá mu.6.kam ina šu<sup>II</sup> PN<sub>2</sub> u PN<sub>3</sub>, a-na PN<sub>1</sub> <sup>lu</sup>en.nam é.sag.il šu-bul. The "sixth year" mentioned can be identified as the sixth year of Cambyses on the basis of prosopographical evidence. The tablet will be edited in full by P.-A. Beaulieu.

16 BM 74758, 9 Dar; BM 79541 (7 Dar; see Jursa 2010: 69 note 323; the text has now been edited in MacGinnis 2008), Dar. 58 (2 Dar).

17 Van Driel 2002: 179–83.

18 Much pertinent evidence can be found in Kleber 2008; note for example her treatment of the dossier concerning the Teispid royal palace at Abanu (Kleber 2008: 85–97). For the Borsippaean documentation, see Jursa/Waerzeggers 2009.

19 For more on tax and labour demands made from private urban households see below.

demands made by the Achaemenid governor Gubāru and his high-ranking colleague Parnakku. A dossier of Urukian letters dating to the reign of Cyrus and Cambyses that deal with building work executed by the Eanna temple for the crown reveal a picture of bad organisation and constant lack of funds and manpower.<sup>20</sup> The temples were also obliged to field a (apparently small) contingent of militia for the purposes of the royal army and for guard duties in the pastures in the foothills east of the Tigris.<sup>21</sup>

b. *The land-for-service sector and ‘military colonists’*

The basic outlines of this system of land tenure was already alluded to above:<sup>22</sup> numerous individuals and groups of individuals, often of non-Babylonian origin, were assigned land – gardens, or more often fields – by the crown, or its representatives. In return, they owed service as soldiers and/or corvée workers as well as taxes paid in kind and (increasingly) in money. The estates in question were often situated on recently reclaimed or even marginal land; sometimes they seem to have consisted of temple land that could not be farmed by the temples themselves.<sup>23</sup> In this way, the land-for-service system served both to integrate foreign groups into the society and the fabric of the state and to extend the range of state-controlled agriculture into otherwise under-exploited areas. Key terms include *hadru*, which designates a collective of such soldier-tenants in the fifth century, and *kišru*, which refers to such groups in the seventh and sixth century.<sup>24</sup> Individual holdings are usually designated as “bow property,” *bīt qašti* or *qaqqar qašti*, the ‘fief’ of an archer, or common soldier, and less frequently as *bīt narkabti*, “chariot property,” the ‘fief’ of a chariot soldier, and *bīt sisē*, “horse property,” the ‘fief’ of a cavalryman. There are further distinctions between land held by “active” soldiers in contrast to those of the “reserve,” as well as to those who owed only partial service.<sup>25</sup>

This phenomenon has a very long history in Mesopotamia.<sup>26</sup> From early on, there was a tendency to dissociate the actual service and the exploitation of the land connected with the service. Inheritance procedures, heavy service obligations (e.g., military service away from home) and the fact that some soldier-tenants held more than one grant all caused outsiders to be brought in to do the actual work.<sup>27</sup> There was also always a role for entrepreneurs (traders, mostly) with access to money in this system: they could extend credit (for tax purposes) to the holders of the grants and eventually achieve control over their land. The service estates could be pledged to businessmen to be exploited by their agents or to be sublet by them, frequently to the original holders of the land. Furthermore, collectives of soldiers with a common tax load had an interest in having as much land as possible within

20 See Stolper 2003. A few texts can now be added to the dossier. K. Kleber will publish a re-evaluation of the letters in the near future.

21 Kleber 2008: 198ff.; Bongenaar 1997: 131ff.; much additional evidence from Sippar will be edited by J. MacGinnis in a forthcoming monograph.

22 The best survey of the evidence is van Driel 2002: 226ff.

23 This is suggested for instance by the references to the *balāṭu ana Bēl* tax mentioned in the Murašû texts and by texts such as BM 75502 (Jursa 1998: 13ff.).

24 On *kišru* see provisionally van Driel 2002: 309 and 310 note 62.

25 The terminology is surveyed by Joannès 2006: 54.

26 See, e.g., Stol 2004: 732ff. See also van Driel 1989a on the “Murašûs in Context.”

27 Van Driel 1999: 219f.

their remit cultivated; therefore, there was an incentive to make use of outsiders whenever the numbers of grant-holders were insufficient for the land available.

It is for these reasons that the obligations of holders of service land are frequently mentioned, not in texts which deal with the relation between these soldier-tenants and higher levels of the royal administration, but in texts which refer to the business relationship between private businessmen and indebted holders of service land on one hand, and between businessmen and royal officials on the other. This is most clearly the case for the Murašû ‘firm’: credit operations ostensibly aimed at helping tenants of service land to fulfil their tax obligations allowed the firm to gain a foothold in the hierarchy of rights and obligations governing the agrarian relationships in the Nippur hinterland. The Murašû archive is qualitatively and quantitatively the best source for this kind of transaction, but it is not unique: several other Neo-Babylonian archives exhibit the two essential elements common to the business model in question, viz., credit extended to holders of service land and agricultural management (including trade in staples).

Fifth-century evidence, roughly contemporaneous with the Murašû archive, can be found in the Kasr archive from Babylon and in the Tattannu archive. The former archive contains several references to bow properties (*bīt qašti*), which were leased out to middlemen (sometimes slaves of the archive owner) and subsequently sublet to the actual cultivators: a well-known type of transaction in the Murašû archive.<sup>28</sup> One text mentions a *bīt sisê* (a “horse property,” i.e., the ‘fief’ of a cavalry man) revealingly mortgaged to the archive owner as security for a substantial debt of silver.<sup>29</sup> The Borsippean Tattannu archive has one reference to a *bīt ritti* (another kind of tenured property)<sup>30</sup> and BM 120024 concerns the management of royal land through some kind of rent farm arrangement. The land in question was broken up into individual (*bīt*) *kussî* plots; this terminology strongly suggests that it was included in the land-for-service system.<sup>31</sup>

In the sixth-century archives, the earliest known reference to bow land, Sack, CD 98 (35 Nbk), concerns a *bīt qašti* that was rented out to an Urukian businessman.<sup>32</sup> Some indirect references come from the Borsippean Gallābu archive and date to the reign of Nabonidus. The Itti-Šamaš-balāṭu archive from Larsa provides other comparatively early evidence for bow properties.<sup>33</sup> In one case, Itti-Šamaš-balāṭu receives several instalments of barley as a royal tax. This tax is possibly payable in return for the right to undertake the management of royal land;<sup>34</sup> one payment is designated as a bow tax.<sup>35</sup> A business company (*harrānu*) in which Itti-Šamaš-balāṭu was engaged as the junior partner (or agent)

28 E.g., *NBDMich.* 45 (Stolper 2007: no. 17), YBC 11554 (Stolper 2007: no. 10). See also Stolper 1995: 225.

29 Bellino G, Stolper 2004: 526. See also Stolper 1995: 223.

30 VS 5, 120: 13.

31 On BM 120024 see Jursa/Stolper 2007: 257ff. Note VS 6, 302, likewise from the Tattannu archive, which refers to a *hadru*, the basic unit within the land-for-service sector (see Jursa 2005: 96<sup>696</sup>).

32 On this text see Jursa 1998a. For the following discussion, detailed references can be found in Jursa 2010: 199ff.

33 E.g., YOS 19, 70 (17 Nbn), a rental contract for bow land (*qaqqar qašti*).

34 The phrase used is *nāmurtu ša šarri*, literally “audience (gift) for the king.” Note that according to YBC 3526, Itti-Šamaš-balāṭu may have had a house constructed on (former?) royal land in Larsa, i.e. in an urban context: Beaulieu 2000: 67.

35 BM 103613 (39 Nbk).

granted a loan of silver to a man so that he could pay for his *šāb šarri* (“royal soldier”).<sup>36</sup> Most of the elements of Murašû-like business are present in the archive; the texts in question date to the reign of Nabonidus and to the first years of Cyrus. The Nūr-Sîn annex to the Egibi archive contains references to pledged land managed by slaves of the archive owner. In one case, this involves land burdened with a service obligation; the debt results from the payment of the corresponding tax – this is a clear case of a ‘Murašû-type’ transaction.<sup>37</sup> Also in the later phase of the Egibi archive, during the reign of Darius, such transactions can be traced through a number of (small) dossiers and individual texts.<sup>38</sup> Similar data can be found in the newly discovered Dannēa archive from Marad dating to the reign of Nabonidus,<sup>39</sup> the Ea-qarrād-ilī archive from Dilbat, which dates to 25 Nbk–1 AM,<sup>40</sup> and in the Maštuk archive from Sippar.<sup>41</sup> This documentation from private contexts mostly refers to individual holders of land-for-service without giving indications of their origin. Collectives of foreign origin mentioned in the sources (mostly temple archives) include Egyptians, Carians, men from Philistia (Gezerites), Assyrians, Arameans, and others.<sup>42</sup> All these groups are already present in Babylonia under Chaldean rule.

As this survey shows, the land-for-service system as found in the Persian period sources, in particular in the Murašû archive of the fifth century, had its roots undoubtedly in earlier Neo-Babylonian practice (which in turn may or may not have been influenced by Assyrian institutions). The Persian administration may have extended this system by reclaiming additional marginal land and settling soldier-tenants on it, but it did so on the basis of pre-extant institutions and customs. The reign of Darius did not constitute a caesura in this respect.

### c. *Taxation of urban households*

#### 1. *Generalities*

The pertinent evidence has increased substantially in recent years, largely through the publication of Egibi tablets dating to the reign of Darius and through work done on the previously unknown large private archives from Borsippa, which likewise mostly date from the reign of Darius.<sup>43</sup> Here we will present a brief summary of the evidence,<sup>44</sup> arguing the following two principal points. First, for the urban population of Babylonia, the modes of taxation remained structurally unchanged throughout the late sixth and early fifth century, from the late reign of Nebuchadnezzar to the end of the reign of Darius. Neither the

36 The *šāb šarri* payment consists of money given to a mercenary hired to perform military service in the place of the person(s) owing this obligation. See below.

37 Wunsch 1993: I 51f. The dossier dates to the reign of Cambyses.

38 See Wunsch 2000b: 111 and Abraham 2004: 57ff. (“collection of payments from bow-units”).

39 Jursa 2010: 201f.

40 The archive’s principal protagonist was engaged in contracting and agricultural management in the land-for-service sector; he is for instance mentioned in a list of Dilbatean chariot soldiers (*dilbatāyū tašlīšū*) from whom payments of silver and dates are extracted (BRM 1, 54; cf. BRM 1, 55).

41 Here, a woman grants a loan to people with tax obligations and takes their bow-land as a pledge: NBC 6228 ([...] Dar).

42 See van Driel 2002, 308ff., Jursa 1998: nos. 2, 3, 7, Jursa 2005: 113 (on the ‘Carian archive’).

43 Abraham 2004 for the Egibi tablets, Jursa/Waerzeggers 2009 for Borsippa.

44 The following is based on the syntheses that can be found in Jursa 2010: 647ff. and in Jursa (in press).

Achaemenid conquest nor the reign of Darius brought qualitative change in the system. This fact is masked by variants in terminology over time and a near-certain overall increase of the taxation rate especially under Darius. Second, while there was an increase of taxes under Darius, the Babylonian evidence does not confirm, and in part clearly contradicts, the thesis that there was a general shift to money taxes under Darius accompanied by large-scale thesaurisation of this money.

The majority of the pertinent sources are receipts for silver payments made by men owing tax or service obligations. However, the principal purpose of the entire system was not to bring cash into the coffers of the state, but to pay for *corvée* labourers or soldiers. Payments made by individuals for *ilku* (“tax/service (obligation)”), *qaštu* “bow tax” and the like were used to pay for the hire of substitutes who undertook to do the actual service in lieu of those who paid for them. Such substitute labourers were either hired by the taxpayers themselves, in an entirely decentralised manner, or by officials on the next level of the administrative hierarchy, i.e., by the heads of tax units and low-ranking military commanders. These money payments were therefore fed into the local economy again.

The principles governing the relationship between the basic elements of the system of taxation and service mobilisation are illustrated well by two letters from Uruk dating to the reign of Cyrus or Cambyses. A temple official complains about the lack of workers and the prohibitive costs of hiring outside labour and orders his colleagues in Uruk: “open the writing board and see that you get a *corvée* worker (*urāšu*) from every single head of a household (*mār banê*) whose name appears in the list”.<sup>45</sup> In a closely parallel text, this request is phrased by the same man in the following terms: “check the writing board listing the temple serfs; don’t let any of them get away, send them all. The heads of a household (*mār banê*) who are listed there should hire a man (each).”<sup>46</sup> The inference is clearly that every household of temple personnel (craftsmen, priests and minor temple officials, clerks and the like are intended here) was obliged to supply the temple upon demand with labour for communal building activities, maintenance work on the canal system and similar activities for which the crown could draw on the resources of the temples (and other institutions). Such free men could be called up for *corvée* or *urāšu* service. In practice this did not necessarily imply personal physical service, but simply meant paying someone who would do the work, as the second letter shows. This text undoubtedly refers to the same obligation by demanding that the *mār banê* hire (*agāru*) wage-labourers (*agru*). The first letter places more weight on the legal obligation (*urāšu*), the second is more explicit regarding the economic mechanism underlying the transaction.

These letters concern obligations that were owed to the temple which drew on its resources in compliance with a royal order. Service that was to be rendered directly to the crown was organised along the same lines already in the Neo-Babylonian period. This is shown for instance by a small archive of a *rab hanšê*, a ‘commander of fifty’ (a military officer) from Nippur.<sup>47</sup> The tablets refer to the *rab hanšê*’s recruiting activities and to the silver payments made to him by the men owing service. These texts demonstrate the double

45 <sup>gis</sup>da <sup>pi-ti-ma</sup> <sup>lú</sup>đumu-đù-<sup>meš</sup> <sup>ša</sup> ina <sup>lib-bi</sup> a-mur <sup>lú</sup>ú-ra-<sup>šú</sup> mu-hur-<sup>šú</sup>nu-tu (YOS 21, 72).

46 <sup>gis</sup>da <sup>ša</sup> <sup>lú</sup>rig<sup>me</sup> a-mur-ma mam-ma ina <sup>lib-bi</sup> la tu-maš-<sup>šar</sup> gab-bi <sup>šu-pur</sup> <sup>lú</sup>đumu-đù-i <sup>ša</sup> ina <sup>lib-bi</sup> <sup>lú</sup>hun.gá li-gur-ru (YOS 3, 17 // TCL 9, 129). See now Kleber 2008: 103f.

47 See Jursa 2010: 649f. for a detailed treatment of the archive of Zēru-ukīn, son of Pir’u.

nature of the ubiquitous term *ilku* that is used to refer to the obligations in question. In TMH 2/3, 212, a silver payment is said to be “a compensation for *ilku*” (*kaspu kūm ilki*). The text takes *ilku* to be primarily a service obligation. In other cases however the silver payments are simply designated as *ilku* themselves (e.g. TMH 2/3, 196). In these cases therefore the word has to be understood as a payment made in compensation for actual service, i.e., for the purpose of hiring a substitute. This terminological ambiguity persists throughout the sixth and fifth centuries.

The perhaps single most explicit dossier that is known so far dates to the later part of the reign of Darius, i.e. to a time after the king’s presumed reform of the taxation system. The taxation texts from the Bēl-rēmāni archive<sup>48</sup> illustrate the existence of tax and service units called *ešertu*, “decury,” in which men sharing a similar social and economic background were united – in the case of Bēl-rēmāni, these were mostly priests. The principal obligation owed by these Sipparean tax units was sometimes designated in the traditional way, as *ilku*, but more often it appears as *qaštu*, “bow tax” or “bow service.” The Persian administration seems to have had an interest in simplifying and standardising taxation terminology. It did so to a considerable degree by imposing the terminology related to ‘bow properties’ (*bīt qašti*) and archer service.<sup>49</sup>

Members of these *ešertus* had the (theoretical) choice between serving in person and hiring men to do service for them. One text listing the members of such a tax unit and their financial contributions concludes with the statement that “one mina of silver ..., the wage of one hireling for six months, is at the disposal of” the head of the tax unit.<sup>50</sup> money had been pooled by the members of the tax unit to pay for half a year of service of an outsider, presumably in Elam.

BM 42352+ is one of the most informative texts from this dossier: half a mina of silver is paid as a share of two men in the bow-tax (*zitti qašti*) owed by their tax unit. The silver is said to be intended “for digging a canal in Elam, for year 17 (of Darius), (a task) which the men of Ubāru [the recipient of the payment, MJ] execute at the behest of the governor of Babylon.”<sup>51</sup> This bow tax thus financed a Babylonian work-gang employed in far-away Elam. This arrangement is one step removed from the personal hiring of a substitute by the person or persons theoretically obliged to do labour or military service, but on the other hand it is quite clear that the payment was not a simple monetary tax that was paid in cash to the Achaemenid treasury. On the contrary, the tablet shows that the extraction of taxes and labour services was based on a decentralised, ‘local’ form of organisation. Sipparean tax units were assigned a certain task by the governor of Babylon (who was also responsi-

48 Edited and discussed in Jursa 1999, particularly on p. 99ff., and placed into a wider context by van Driel 2002: 295f. and *passim*.

49 Two facts bear repetition: the *bīt qašti* and the associated system of service obligations predate the Persian conquest, and in an urban context in the Persian period, being liable to the *qaštu* obligation does not imply ownership of a *bīt qašti*. On these matters see e.g. van Driel 2002: 237ff. and 312. Note that labour obligations (*urāšu*) could be levied in addition to *qaštu* (the two terms are mentioned side by side in BM 74638 (Waerzeggers 2000/2001: no. 41, see van Driel 2002, 238<sup>50</sup>).

50 BM 42633 // 42444; Jursa 1999: 219f.

51 See Jursa 1999: 151f., van Driel 2002: 243. 1/2 ma.na kù.babbar... (description of the silver) ha.l[a]  
<sup>gis</sup>ban šá PN<sub>1</sub> ù PN<sub>2</sub> (Bēl-rēmāni) šá dul-lu id šá [id]<sup>7</sup> šá <sup>uru.kur</sup>elam<sup>ki</sup> šá mu.17.kam šá <sup>lu</sup>erīn<sup>mes</sup> [šá]  
 l[ú-ba]r ina šu<sup>II</sup> <sup>lu</sup>gar.ku tin.tir<sup>ki</sup> ip-pu-šu.

ble for Sippar) and set up, and paid for, a labour gang led by one of their own: Ubāru, the recipient of the payment, is a well-known Sipparean priest.<sup>52</sup> The governor of Babylon must have received his directions in a general form from the highest levels of the Achaemenid administration, but apart from this necessary step the entire organisation was in Babylonian hands, and the tax money circulated primarily among Babylonians. No record of the pertinent transactions would have reached the royal administration.

The Egibi tax file and pertinent records of the archives of the Borsippean priesthood<sup>53</sup> confirm this conclusion: the period of Darius was not distinguished from earlier decades by a notable preference for the extraction of taxes in cash. There was probably a marked extension of labour obligations, especially by the introduction of obligatory service outside Babylonia proper, foremost in Elam, but otherwise the system did not change. On the level of the individual taxpayers or tax units, obligations towards the state were still mostly fulfilled by direct hiring of substitute workers or by supplying the money for this purpose to someone on a higher rung of the pertinent administrative hierarchy. There is no structural difference between the Achaemenid taxation system reflected in the Bēl-rēmānni dossier and the Chaldean system reflected by the files of the Nuppurean *rab hanšē* discussed above: the state still aimed primarily at extracting labour, not cash.

## 2. *The basis of taxation and labour services*

The taxation of city dwellers was based on the possession of certain types of agricultural land or urban real estate or on the affiliation to a certain social or professional group. Already under the Chaldean monarchy, many well-to-do city dwellers (frequently priests and other member of the urban elite) owned gardens in the hinterland of their cities which were located in the regular field systems (*hanšûs*, literally “fifties”<sup>54</sup>). These ‘fifties’ were as a rule situated on land which had been reclaimed late in the seventh or early in the sixth century through state intervention. Possession of (alienable!) land in such areas brought certain tax and service obligations.

This system was taken over by the Persian administration. The new rulers partly changed the terminology of the field systems, but not their structure, by introducing the terminology related to the bow properties of the land-for-service sector (which, it should be recorded, had an entirely different social and economic/legal background). From the reign of Cambyses onwards, one hears of bow taxes (*qaštu*) being owed for *hanšû* property.<sup>55</sup> Under Darius, the *bīt qašti* is frequently encountered in an urban context, and even more so the *qaštu* obligation. This does not mean that all the prosperous urban families owing such

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52 Jursa 1999: 64.

53 Abraham 2004: 17ff. and Jursa/Waerzeggers 2009, respectively.

54 The name of these field complexes refers to the standardized size of the plots, which was defined by their frontage on the main canal (fifty cubits or multiples thereof). According to TCL 12, 11, a ‘fifty’ plot was divided into five parts representing the allotment of individual tax units of ten men/households (*ešertu*). In this case at least, a single household was allotted two *kurru* of land, a garden size that is sufficient to maintain a family.

55 BM 27781, 4 Camb; see also van Driel 2002: 237 on BM 79128.

payments had been granted *bīt qašti* land by the Persian administration; rather, the old Chaldean land grants of the *hanšû* type had been integrated, at least superficially, into the *qaštu* system.

Taxation levied according to urban residence patterns was likewise based on the creation of tax units (of ten or fifty men/households) sharing service and tax obligations.<sup>56</sup> The city ward (*bābtu*) seems to have been a unit of reference, one hears of “levies of the city ward,” *dīku ša bābti*.<sup>57</sup> Also in this case, *ešertu* units were created that normally paid for substitute labourers doing the actual work.

Affiliation to certain professional groups, or to an institution, could likewise form the basis of service obligations. Tax units formed by men sharing the same occupation (in particular, prebendary bakers and brewers) are known from Achaemenid Borsippa.<sup>58</sup> The distinction between such tax units formed on the basis of social/economic criteria and the tax units based on residence patterns mentioned above is probably to some extent artificial.

### 3. The terminology for the various service obligations incumbent on individuals and groups (tax units)

These matters have been discussed extensively by van Driel.<sup>59</sup> The most frequent terms are the following.

- *ilku* “service obligation (or corresponding payment).” Several other, more specific obligations can be subsumed under this term, such as *ilku ša urāši* “corvée service,” or *ilku ša bābti* “labour service based on residence in (a certain) city ward.” In Murašû texts of the fifth century, *ilku* payments consist of several components (such as “king’s soldier,” *šāb šarri*, “flour of the king,” *qēmu ša šarri*, and others) that are normally paid in silver.<sup>60</sup> Also in the sixth century payments are exclusively made in silver. In this period, a wide range of *ilku* payments between three and forty shekels per year is attested. The word can interchange with *qaštu* “archer/soldier” and *urāšu* “corvée (worker).” *dīku* “levy,” and several other terms occur less often in connection with *ilku* payments.
- *qaštu* “(payment for) archer (service).”<sup>61</sup> The most common obligation under Darius; it is the main component of, or identical with, *ilku* in this period. It is usually tied to membership in a tax unit (*ešertu* in Babylon, Sippar and Uruk, *ziqpu* in Borsippa). The full cost of equipping an archer for a year amounted to up to one mina (60 shekels) of silver.

56 Stolper 2000 for the later Achaemenid period; van Driel 2002: 294f. for some evidence from the sixth century; Jursa/Waerzeggers 2009: 251f.

57 E.g. van Driel 2002: 295; BM 102256: *ilku ša bābti*.

58 Jursa/Waerzeggers 2009: 252f.

59 Van Driel 2002: 2002: 237ff. Additional discussion and references for the following list can be found in Jursa (in press) and Jursa/Waerzeggers 2009: 254ff. (a catalogue of taxes attested in the Borsippaean documentation).

60 Van Driel 2002: 255, Joannès 2006: 53.

61 Perhaps the term should be better understood as referring to military service in general.

It was most often borne by collectives, though.<sup>62</sup> Occasionally the word can interchange with *ilku ša urāši* and similar terms.<sup>63</sup>

- *urāšu* “corvée, corvée worker.” In the Chaldean and early Persian period, this is the obligation that is most frequently imposed on private households. Later in the Persian period, especially under Darius, this term is usually substituted, but not entirely replaced, by *qaštu*; the two can interchange. There is probably no material difference between the obligations designated by these two terms. *urāšu* service frequently required service outside of Babylonia, foremost in Elam.<sup>64</sup> A particularly frequent form of the *urāšu* obligation involves the transport to Elam of (ceremonial?) food contributions destined for the royal court at Susa (*urāšu ša zebēli ša upiyāti (ša Elammat)*).

Other terms are either mere terminological variants of the three terms discussed above or can at least be integrated in the basic system as defined by these obligations. *dullu* “labour” and *kutallūtu* “substitute service” are the most important. It should be repeated that all these terms originally refer to labour obligations and that the ubiquitous silver payments made in this respect refer to the payment of substitute labourers or soldiers.

#### 4. Taxes payable in kind

Payments in kind play a minor role in the context of the taxation of city dwellers. In general the agricultural income of private urban households does not seem to have been taxed by the crown. Only a flour tax intended to benefit the local palace institutions is mentioned frequently in the sixth and fifth centuries alike. In the final count this is a labour obligation, however – the grain that was to be milled could be furnished by royal officials from the royal stores.<sup>65</sup> This obligation belongs in the wider context of the manifold obligations borne by the subject populations of the Achaemenid empire to contribute to the supplying of the Persian court. The *upiyātu* foodstuffs that were destined for Elam and had to be furnished and transported there for instance by the Borsippean priests are part of the same general kind of obligation. Sipparean priests occasionally had to contribute to the provisioning of palace personnel in Babylon.<sup>66</sup> Finally, individual urban households could be made responsible for the provisioning of royal dependants who were quartered with them: this phenomenon, which is so far attested only for the Teispids and the early years of Darius, is known from Borsippa and Babylon, where Egypto-Carian and Jewish mercenaries were stationed (Waerzeggers 2006), and from Uruk, where at least one Iranian boy was placed in a household of temple dependants by an Iranian noble.<sup>67</sup>

62 Texts dealing with the hiring, provisioning and equipment of soldiers use the keywords *rikis qabli* and *pasa’du* “fitting out,” as well as *šāb šarri* “royal soldier.” Payments thus designated do not refer to an independent type of tax, but to the normal *ilku* or *qaštu* obligation.

63 Jursa (in press), § 5.3b.

64 Also Opis and the Sealand are mentioned in this context: Jursa/Waerzeggers 2009: 261.

65 See van Driel 2002: 268f.

66 Janković 2007: 223 note 10.

67 Jursa in press b.

### 5. *Direct taxes paid in cash*

We have emphasised that the ubiquitous silver payments attested in a taxation-related context refer in fact to labour obligations and are intended in most cases for the hiring of substitutes and that the silver thus paid continued to circulate mostly within Babylonia and among Babylonians. Even though on the level of the individual taxpayer these arrangements could be mistaken for straightforward money taxes in those cases in which the money was collected either by the commanders of military/corvée units or by tax-farmers and was subsequently passed on to higher authorities or was used locally to hire the necessary men, in fact the original link to service obligations and consequently the intention to finance actual work/service with the tax money was always maintained. The ‘taxation system’ was geared primarily towards the mobilization of manpower. Silver payments demonstrably intended for the Persian court and therefore potentially for thesaurisation (as predicted by the Herodotean model) are restricted to those cases in which Babylonians transport silver to Susa.<sup>68</sup>

### **Indirect taxation in Babylonia under Persian rule until the end of the reign of Darius I**

Indirect taxation and fees collected by the government, or by tax farmers on behalf of the government, is richly documented. The taxation of real estate sales begins at the latest during the reign of Nabonidus, that is, already under Chaldean rule.<sup>69</sup> Under Darius (at the latest) the authorities kept a land register for monitoring and taxing such transactions.<sup>70</sup> In the same period, also slave sales were taxed. This system was maintained and developed continuously until the Hellenistic period.<sup>71</sup>

The second principal type of indirect tax was levied on the transport of goods. At the latest since the reign of Nebuchadnezzar, numerous fees were levied for the use of harbours, bridges and gates. Also here there is a continuous development from Chaldean times throughout the Achaemenid period until the third century and Macedonian rule.<sup>72</sup>

Payment for water rights was owed to land owners, including the crown.<sup>73</sup> Whether there was a general tax on water rights is uncertain.<sup>74</sup>

### **Conclusion**

Returning to Herodotus III 89ff., we can conclude that in the case of Babylonia, Darius’ “tax reforms” amounted to an increase in the labour services that were extracted from the province through channels which in principle had already existed before the Achaemenid conquest. While the complex system of service obligations and hired substitute labour functioned nearly exclusively on a monetary basis – essentially all tax-payers would have been forced to participate in the money-based economy to some extent –, there is no evidence for an increase of direct monetary taxation and for a substantial flow of cash from

68 E.g. VS 6, 155; Donbaz/Stolper 1997: no. 46. See the comprehensive study of this matter by C. Waerzeggers (in press).

69 Van Driel 2002: 185.

70 Baker 2004: 59ff.

71 See in general Stolper 1989 and Jursa 2008: 608f.

72 See van Driel 2002: 274ff.; Joannès 2002: 509ff.; Weszeli 2009: 165.

73 Most payments for water rights that are attested in the sixth century are payments to temples.

74 Van Driel 2002: 188ff.; Stolper 1985: 36ff. and id. 2005.

Babylonia to the imperial centre(s). Some thesaurisation obviously must have taken place, but the bulk of taxation-related transactions took place *within* the Babylonian economy and did not result in a substantial withdrawal of specie from circulation within the province. Herodotus' description misses this essential point, and his figure of one thousand talents that were the yearly tax load of Babylonia is, I would submit, worthless:<sup>75</sup> not because the Achaemenid administration would necessarily have been unable to state the total amount of cash that was extracted by the royal administration from Babylonia for the purpose of thesaurisation during any given period (although I would not consider it a given that such figures were available), but because the contributions demanded from Babylonia by the Achaemenid administration (from Cyrus to Darius) consisted foremost in labour and military service. In principle this service can be said to have had a 'monetary value,' as it was rendered to a large extent by hirelings who were paid silver wages, but it was not conceived in monetary terms and no one, least of all the Achaemenid administration, would have been able to establish the money equivalent of the labour that Babylonia made available to the Great King on a yearly basis.

## Appendix

Klinkott 2007: 284f. presents a summary table of his view of taxation in the Achaemenid empire. Since he draws on Babylonian sources only to a very limited extent, it may be convenient to juxtapose his scheme (in an abbreviated form) and the Babylonian evidence, as follows.<sup>76</sup>

75 One could try to salvage a part of the Herodotean narrative for Babylonia by assuming that Herodotus refers to a different part of the taxation system than that illuminated by the Babylonian primary sources, viz., to payments made directly by the satrapial court to the crown. While Babylonian texts amply document taxation and service obligations as administered within the province, cash payments to the king made on the higher administrative level of the provincial administration would have remained invisible in the type of documentation we have: transactions would have been concluded entirely among Persians who would not have used Cuneiform writing. This reading of the evidence is highly improbable however because there is no tax base that could have supported these supposed substantial cash payments that were made by the Satrap to the king. We know that this silver by and large could not have come from the Babylonian communities (cities and temples). These were taxed in a different form, as demonstrated in this paper. One would have to assume that it was the royal estates and perhaps the estates of Iranian nobles that generated this assumed substantial silver surplus. It is indeed possible that the royal domain lands under direct or indirect management paid cash contributions to the crown, but it is highly unlikely that they alone would have been in a position to produce the yearly money equivalent of the wages of 60,000 workers or soldiers (at five shekels of silver per month): royal domain lands did not make up a substantial part of the Babylonian rural countryside.

76 This does not imply a complete endorsement of the particulars of Klinkott's interpretation of the classical sources on which his scheme largely rests. Note that while the diachronic aspect is largely missing from Klinkott's scheme (naturally, given the type of sources he draws on), the Babylonian column refers to the period of Darius I unless otherwise stated. References are kept to an absolute minimum; see the literature cited in note 8 above.

Table 1: *Achaemenid Taxation: the Klinkott scheme (2007: 284ff., abbreviated) and the Babylonian data*

Klinkott	Babylonian data
1. Die Königsversorgung (ταγή) a) als reichsweiter Anteil b) Durch ... Zölle ... c) ... Königliche Domänen d) Durch einmalige ... Belastungen einzelner Gemeinden oder Tempel	a) foodstuffs taken to Susa etc. ( <i>upiyātu</i> ) b) gate taxes etc. (perhaps levied by, and intended for, local authorities) c) occasional references to royal estates d) occasional pertinent references (Abanu etc.; reign of Cambyses)
2. Der Tribut (φόρος) <sup>77</sup> a) festgesetzte, regelmäßige und reichsweite Zahlung (außer in der Persis) b) Heerespflicht der unterworfenen Völker im Gesamtaufgebot des Reiches	a) very limited evidence for direct money payments to the crown <sup>78</sup> b) very rich evidence for military and corvée obligations ( <i>ilku</i> , <i>urāšu</i> , <i>qaštu</i> , etc.)
3. Allgemeine Reichssteuern (πρόσοδος, φόρος, ..., <i>h<sup>a</sup>lākh</i> ) a) Zehnt b) Grundsteuer ( <i>h<sup>a</sup>lākh</i> ) c) Erstfrüchte bzw. Fruchtzins	a) there was no royal tithe b) some, but not all, private urban and rural land was subject to taxation (i.e. service obligations) c) temples had to deliver 3.3 % of their harvest to the crown; otherwise there is next to no evidence for taxation in kind
4. Die städtischen ... Steuern	some evidence (gate taxes etc., see above)
5. Unregelmäßige ... Geschenke b) Von einzelnen Gemeinwesen ... zusätzlich zu den regulären Abgaben c) Von Einzelpersonen oder kleinen ... Gruppen	b) no evidence c) no evidence, but this may be coincidental

77 Klinkott takes the “tribute” to be the part of the total of imperial taxes (“allgemeine Reichssteuern”) which was passed on by the satraps to the Great King (2007: 273f.); therefore his item (2) is actually a subset of item (3), and the subdivisions under (3) are also relevant as grounds for payments under heading (2).

78 Note that this is not a simple *argumentum e silentio*. The sources are frequently sufficiently explicit to allow pertinent insights.

## Abbreviations

Cuneiform texts, journals and series are cited according to the usual Assyriological conventions (see e.g. Jursa 2005: 153ff. for a pertinent list). Note the following abbreviations of kings' names used in Babylonian dates (which follow the format day.month.king's regnal year [acc stands for "accession year"]).

Npl	Nabopolassar	626–605
Nbk	Nebuchadnezzar II	604–562
AM	Amīl-Marduk	561–560
Ner	Neriglissar	559–556
LM	Lâbâši-Marduk	556
Nbn	Nabonidus	555–539
Cyr	Cyrus	538–530
Cam	Cambyses	529–522
Bar	Bardiya	522
Nbk III	Nebuchadnezzar III	522
Nbk IV	Nebuchadnezzar IV	521
Dar	Darius I	521–486
Xer	Xerxes I	485–465

Note also: š. = shekel (8.3 g); m. = mina = 60 shekels = 0.5 kg.

AfO (Beih.) = Archiv für Orientforschung (Beiheft)

AOAT = Alter Orient und Altes Testament

GMTR = Guides to the Mesopotamian Textual Record

IOS = Israel Oriental Studies

JCS = Journal of Cuneiform Studies

JESHO = Journal of the Economic and Social History of the Orient

NABU = Nouvelles Assyriologiques Brèves et Utilitaires

RLA = Reallexikon der Assyriologie

WZKM = Wiener Zeitschrift für die Kunde des Orients

ZA = Zeitschrift für Assyriologie und Vorderasiatische Archäologie

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